WHAT IS CLAIMED IS:

1. A method for fabricating a micro-electromechanical systems (MEMS) device having a top cap and an upper sense plate, said method comprising:

producing a device wafer including an etched substrate, etched silicon, and interconnect metal, a portion of the interconnect metal being bond pads;

adding a metal wraparound layer to a back side, edges, and a portion of a front side of the device wafer;

producing an upper wafer including an etched substrate and interconnect metal;

bonding the device wafer and the upper wafer; and

dicing the bonded upper wafer and device wafer into individual MEMS devices.

2. A method according to Claim 1 wherein producing a device wafer comprises:

forming recesses on a glass substrate where conductive paths are to pass into the cavity;

forming conductive leads in and around the recesses;

depositing a glass layer into the recesses such that the glass layer is substantially level with a surface of the substrate.

3. A method according to Claim 1 wherein adding a metal wraparound layer comprises:

setting the device wafer in a fixture;

applying a bias voltage to the substrate of the device wafer; and

sputtering the wrap around metal layer onto the substrate.

4. A method according to Claim 1 further comprising:

adding recesses to the upper wafer, at positions above the bond pads after the bonding of the device wafer and the upper wafer; and

cutting into the upper wafer at the recesses.

5. A method according to Claim 4 wherein cutting into the upper wafer at the recesses comprises sawing part way through the top cap to expose the bond pads on the device wafer.

6. A method according to Claim 1 wherein producing an upper wafer including an etched substrate and interconnect metal comprises configuring a portion of the interconnect metal as an upper sense plate.

7. A method according to Claim 1 wherein the etched MEMS device components include at least one proof mass and wherein producing an upper wafer including an etched substrate and interconnect metal comprises:

determining a distance between the proof mass and the interconnect metal in the device wafer configured as a sense plate;

controlling a depth of the etching in the upper wafer such that the interconnect metal in the upper wafer to be configured as an upper sense plate will be substantially the same distance from the proof mass, after bonding, as the interconnect metal in the device wafer configured as a sense plate; and

configuring a portion of the interconnect metal in the upper wafer as an upper sense plate.

8. A method according to Claim 1 further comprising depositing anti-stick metal on at least a portion of the interconnect metal on the device wafer and the upper wafer.

9. A method according to Claim 1 wherein producing a device wafer comprises forming a support ring around a perimeter of the MEMS device components, the support ring to support the upper wafer.

10. A method according to Claim 9 further comprising insulating the support ring from the interconnect metal.

11. A method according to Claim 10 wherein insulating comprises forming a protective shield in the MEMS device to substantially prevent any particulates from electrically contacting the support ring.

12. A top cap for a micro-electromechanical systems (MEMS) device comprising:

a substrate comprising a surface and recesses formed in said surface;

interconnecting metal deposited into and extending out of said recesses and onto said surface;

at least one recess formed in said surface of said substrate, and positioned to be above a bond pad of a device wafer onto which said top cap is to be bonded.

13. A top cap according to Claim 12 comprising anti-stick metal deposited on said interconnect metal.

14. A micro-electromechanical systems (MEMS) device wafer comprising:

a substrate comprising a front side including a surface, a back side, edges extending between said front side and said back side, and recesses formed in said surface;

interconnecting metal deposited into and extending out of said recesses and onto said surface;

a MEMS structure formed from silicon and bonded to said substrate; and

a wrap around metal layer deposited on said back side and said edges of said device wafer, said metal layer also extending onto a portion of said front side.

15. A MEMS device wafer according to Claim 14 wherein a portion of said recessed trenches including said interconnect metal comprise an additional material therein which provides a smooth surface at the same level as said front side surface.

16. A MEMS device according to Claim 15 wherein said additional material is an electrical insulator.

17. A MEMS device wafer according to Claim 14 wherein said MEMS structure comprises a support ring substantially encircling a remainder of said MEMS structure.

18. A MEMS device wafer according to Claim 17 wherein said MEMS structure comprises at least one protective shield to reduce incidents of contact between particulates and said support ring.

19. A micro-electromechanical systems (MEMS) device comprising:

a device wafer comprising a substrate comprising a front side including a device wafer surface, a back side, edges extending between said front side and said back side, and recessed trenches formed in said device wafer surface, interconnecting metal deposited into and extending out of said recessed trenches and onto said device wafer surface and comprising at least one bond pad, a MEMS structure formed from silicon and bonded to said substrate, and a wrap around metal layer deposited on said back side and said edges of said device wafer, said metal layer also extending onto a portion of said front side; and

an upper wafer bonded to said device wafer, said upper wafer comprising a top cap substrate comprising an upper wafer surface and recesses formed in said upper wafer surface, upper wafer interconnecting metal deposited into and extending out of said recesses and onto said upper wafer surface, at least one recess formed in said upper wafer surface, and positioned to be above said at least one bond pad.

20. A micro-electromechanical systems (MEMS) device according to Claim 19 wherein said MEMS structure comprises at least one of gyroscopes, accelerometers, resonators, temperature sensors, and pressure sensors.

21. A micro-electromechanical systems (MEMS) device according to Claim 19 wherein said MEMS structure comprises at least one proof mass, at least one motor drive comb, and at least one motor pickoff comb.

22. A MEMS device according to Claim 19 wherein a portion of said recessed trenches including said interconnect metal comprise an additional material therein which provides a smooth surface at the same level as said front side surface.

23. A MEMS device according to Claim 19 wherein said additional material comprises an electrical insulator.

24. A MEMS device according to Claim 19 wherein said MEMS structure comprises a support ring encircling a remainder of said MEMS structure.

25. A MEMS device according to Claim 19 wherein said MEMS structure comprises at least one protective shield to reduce incidents of contact between particulates and said support ring.

26. A MEMS device according to Claim 19 wherein a depth of said recesses in said upper wafer are controlled such that said interconnect metal in said upper wafer to be configured as upper sense plates are the same distance from a proof

mass, after bonding of said device wafer and said upper wafer, as said interconnect metal in said device wafer to be configured as sense plates.

27. A MEMS device according to Claim 19 wherein said upper wafer is cut at said recesses to expose said bond pad on said device wafer.

28. A method for preventing electrical shorts in a MEMS device including at least one electrical interconnection passing under a support ring, the electrical interconnection being in a recessed trench and a material filling the trench onto which the support ring is mounted, said method comprising forming a protective shield near the support ring, the shield substantially preventing incidents of particles shorting the support ring to the electrical interconnection.

29. A method for fabricating a top cap and an upper sense plate for a micro-electromechanical systems (MEMS) device, the top cap to be bonded to a device wafer, the device wafer including bond pads, said method comprising:

adding recesses to the top cap at positions above the bond pads after the bonding of the device wafer and the top cap; and

cutting into the top cap at the recesses.

30. A method according to Claim 29 wherein cutting into the top cap at the recesses comprises sawing part way through the top cap so as to expose the bond pads on the device wafer.